

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

In the Matter of:)
)
Mercury Vapor Processing)
Technologies, Inc. a/k/a River Shannon)
Recycling)
13605 S. Halsted)
Riverdale, IL 60827)
EPA ID No: ILD005234141, and)
)
Laurence Kelly)
)
Respondents)

Docket No. RCRA-05-2010-0015

RECEIVED
MAR 28 2011
REGIONAL HEARING CLERK
USEPA
REGION 5

Motion to Supplement Respondents' Pre-Hearing Exchange

Respondents Mercury Vapor Processing Technologies, Inc. a/k/a River Shannon Recycling and Laurence Kelly, pursuant to the Consolidated Rules of Practice found at 40 CFR §22, respectfully request to Supplement their Pre-Hearing Exchange with the attachments to their Objection to Complainants Motion for Partial Accelerated Decision as to the Applicable Regulations and Liability for reasons as follows:

The addition of Laurence Kelly as a Respondent in this case has brought additional information to light that the Respondents wish to present to the Honorable Judge Gunning for consideration.

Prior to filing this Motion, the undersigned contacted the opposing party as to the relief requested herein and said opponent indicated that the Complainant will not object to a timely motion to supplement Respondent's prehearing exchange, provided Complainant is given an opportunity to respond to it. Further, Complainant reserves all objections to the admissibility of any information in the supplemental prehearing exchange.



Laurence Kelly

3-25-2011

Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE ADMINISTRATOR

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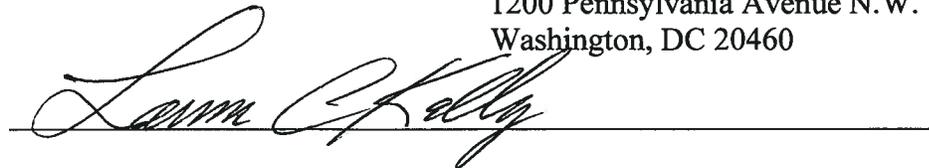
CERTIFICATE OF SERVICE

I certify that the foregoing Motion to Supplement Respondents' Pre-Hearing Exchange, dated March 25, 2011, was sent this day in the following manner to the addressees listed below:

Original by Hand Delivery to: Regional Hearing Clerk
U.S. EPA - Region 5
77 W. Jackson Blvd.
Mail Code: E-19J
Chicago, IL 60604

Copy by Hand Delivery to: Thomas M. Williams
Associate Regional Counsel
US Environmental Protection Agency - Region 5
77 W. Jackson Blvd.
Mail Code: C-14J
Chicago, IL 60604

Copy by Federal Express Delivery: The Honorable Judge Gunning
U.S. Environmental Protection Agency
Office of Administrative Law Judges
Mail Code 1900L
1200 Pennsylvania Avenue N.W.
Washington, DC 20460



Laurence Kelly
7144 N. Harlem Ave.
Suite 303
Chicago, IL 60631

DELIVERY RECEIPT

Original by Hand Delivery to:

Regional Hearing Clerk
U.S. EPA - Region 5
77 W. Jackson Blvd.
Mail Code: E-19J
Chicago, IL 60604

One Package delivered to the above captioned address on Friday March 25, 2011.

Received by: C. Keeling

On: 3/25/11

RECEIVED
MAR 28 2011
REGIONAL HEARING CLERK
USEPA
REGION 5

USEPA OBJECTION INDEX

EXHIBIT 22

ATTACHMENT "A" 2005 RIVERDALE BUSINESS LICENSE APPLICATION

EXHIBIT 23

ATTACHMENT "B" 2006 RIVERDALE BUSINESS LICENSE APPLICATION
BUSINESS LICENSE RENEWAL REQUEST (JOYCE FORBES)

EXHIBIT 24

ATTACHMENT "C" RENDERING DEPICTING NEW RIVERDALE FIREHOUSE OVER
THE TOP OF RSR'S WAREHOUSE (PUBLISHED PRIOR TO 9-6-07)

EXHIBIT 25

ATTACHMENT "D" PHOTOGRAPHS OF THE 10-4-2007 SIEGE AND RAID
BY RIVERDALE POLICE AND OTHER OFFICERS

EXHIBIT 26

ATTACHMENT "E" RETURN OF ONE YEAR AND REFUND OF 2 YEARS OF BUSINESS
LICENSE FEES PAID TO THE VILLAGE OF RIVERDALE

EXHIBIT 27

ATTACHMENT "F" SLR ADDITION TO MVP CORPORATE UMBRELLA

EXHIBIT 28

ATTACHMENT "G" AFFIDAVIT FROM SLR'S LANDLORD IN MORTON GROVE, ILL

EXHIBIT 29

ATTACHMENT "H" ILLINOIS HOW TO MANAGE HID'S AS UNIVERSAL WASTE

EXHIBIT 30

ATTACHMENT "I" USEPA – MERCURY INFORMATION FOR CONSUMERS

EXHIBIT 31

ATTACHMENT "J" USEPA – RCRA TRAINING MODULE

EXHIBIT 32

ATTACHMENT "K" USPEA - BASIC INFORMATION FOR RECYCLING MERCURY
CONTAINING LIGHT BULBS

Exhibit 22

Attachment "A"

VILLAGE OF RIVERDALE
157 W. 144TH STREET
RIVERDALE, IL 60827
708-841-2200/FAX: 708-841-7587

FEB 24 2005
VILLAGE OF RIVERDALE
CK
DPA

APPLICATION FOR LICENSE
BUSINESS

DATE 2-24-05
LICENSE FEE \$ 100.00

PRINT OR TYPE
FIRM NAME River Shannon Recycling BUS. PHONE 847-581-2890
BUSINESS ADDRESS 13605 S. Halsted Riverdale IL 60827
STREET CITY/STATE ZIP

EMERGENCY PHONE 847-977-0240 NO. OF SQ. FT. FOR BUSINESS/STORAGE 700
TYPE OF BUSINESS(EXPLAIN IN DETAIL) Recycling of CRT'S + CPU'S + Non Regulated
"Universal Waste"

NO. OF EMPLOYEES: 3 IBT# 36 4542937
FOOD SERVICE NO. OF SEATS _____
LAUNDRY/DRY CLEANING NO. OF UNITS _____
SERVICE STATION NO. OF PUMPS _____
BEAUTY/BARBER SHOP PROCESSOR/RECYCLER _____ CIGARETTE/TOBACCO DEALER
VENDING/CIGARETTE/COPY MACHINE (COMPLETE THE APPLICATION FOR VENDING MACHINE LICENSES)
AMUSEMENT DEVICE (COMPLETE THE APPLICATION FOR AMUSEMENT DEVICE LICENSES)
SIGN (COMPLETE THE SIGN LICENSE APPLICATION)
LIQUOR LICENSE (COMPLETE THE LIQUOR LICENSE APPLICATION)

OTHER: _____

MANAGING INFORMATION: () PROPRIETORSHIP () PARTNERSHIP (X) CORPORATION

PLEASE PROVIDE THE FOLLOWING INFORMATION FOR FIRM OFFICER(S) OR OWNER(S).

NAME (PRINT) LAURENCE C. KELLY President SOC. SEC. # 338-39-3486
HOME ADDRESS 2201 W. CRESCENT Park Ridge IL
PHONE 847-698-9589 DRIVER'S LICENSE/STATE ID # KX00-5234-4030 STATE IL

NAME _____ SOC. SEC. # _____
HOME ADDRESS _____
PHONE _____ DRIVER'S LICENSE # _____ STATE _____

FOR ADDITIONAL OFFICERS, ATTACH ADDITIONAL SHEETS AS NECESSARY

BUILDING OWNER: NAME Allied/Continental Window + Glass
ADDRESS 13605 S. Halsted Riverdale IL 60827
STREET CITY/STATE ZIP
PHONE 1708-372-2259

I UNDERSTAND THE ISSUANCE OF THIS LICENSE IS CONDITIONED UPON COMPLIANCE WITH ALL VILLAGE ORDINANCES/INSPECTIONS. NO BUSINESS MAY OPEN UNTIL FEES ARE PAID AND LICENSE IS ISSUED.

SIGNATURE Laurence C. Kelly DATE 2-24-05

INCOMPLETE APPLICATIONS WILL BE RETURNED TO APPLICANT

FOR OFFICE USE:
DEPT ROUTING: _____ DATE _____ DATE OF FINAL APPROVAL _____ INITIALS _____

RIVER SHANNON RECYCLING TECHNOLOGIES
7144 N HARLEM AVENUE PH 847-977-0240
CHICAGO, IL 60631

06-03 ²⁻⁵⁰ 710
5201139366
DATE 2-24-05

1669

PAY TO THE
ORDER OF

Village of Riverdale
One Hundred 00/100

\$ 100.00

DOLLARS

LaSalle Bank
A B N A M B C

LaSalle Bank N.A.
Chicago, IL 60603
lasalle.com

MEMO

Dis. Acc.

Laura C. Kelly

⑆07⑆000505⑆ 5201139366⑆ 1669 ⑆0000010000⑆

02252005 0038842070

PKT=11

071000305

02/23/05

0224415910

HERITAGE COMMUNITY BANK
70-1895, RIVERDALE, IL 70-1899
FOR DEPOSIT ONLY
VILLAGE OF RIVERDALE
JOYCE E. FORBES
VILLAGE CLERK

Account Number: 5201139366
Check Number: 1669
Posting Date: 2005-02-28
Amount: \$100.00

Exhibit 23

Attachment "B"



Village of Riverdale

157 West 144th Street • Riverdale, IL 60827-2707
(708) 841-2200 • Fax (708) 841-7587

June 19, 2006

River Shannon Recycling
6400 Chestnut Ave.
Morton Grove, IL 60053

RE: Business License Renewal
Type: Recyclers – 13605 S. Halsted, Riverdale

Dear Business Owner:

My records indicate that you have failed to renew your business license for the current business year. Each location needs to be licensed as a separate business entity. Your license expired on April 30, 2006, and you are in violation of Village ordinances. In order to avoid further legal action, you must submit the appropriate fees and license forms not later than June 30, 2006. Be sure to complete all sections of the forms as applications will be returned if not completed properly. You are required to notify the Village should there be any changes to your business throughout the business year.

As a Recycler, your business license fee is \$800.00.

Chapter 8.70 of the Municipal code provides for Key Lock Box Systems to be installed on each property except single family and two family dwellings. No license will be issued to any business that has failed to install the Knox Box. Should you need information regarding the Knox Box, contact the Fire Department, 849-2122.

Office hours at Village Hall are Monday, Tuesday, Thursday, and Friday, 9:00 am to 5:00 pm, and Wednesdays, 9:00 am to 8:00 pm. Thank you for your cooperation in this matter.

Sincerely,

Joyce E. Forbes, MMC
Village Clerk

BUSINESS INFORMATION: () PROPRIETORSHIP () PARTNERSHIP () CORPORATION

BUSINESS OWNER INFORMATION:

NAME (PRINT) Laurence C. Kelly TITLE President SOC. SEC.# 338-34-3486
HOME ADDRESS 2201 W. Crescent CITY/STATE/ZIP Park Ridge, IL 60068
PHONE (847)698-9589 CELL (847)977-6240 DRIVERS LICENSE/STATE ID # K400-5234-4030 STATE IL

NAME (PRINT) _____ TITLE _____ SOC. SEC.# _____
HOME ADDRESS _____ CITY/STATE/ZIP _____
PHONE _____ CELL _____ DRIVERS LICENSE/STATE ID # _____ STATE _____

Use separate sheet for additional officer/owner information

MANAGER INFORMATION:

NAME (PRINT) same as above TITLE _____ SOC. SEC.# _____
HOME ADDRESS _____ CITY/STATE/ZIP _____
PHONE _____ CELL _____ DRIVERS LICENSE/STATE ID # _____ STATE _____

Use separate sheet for additional manager information

I UNDERSTAND THE ISSUANCE OF THIS LICENSE IS CONDITIONED UPON COMPLIANCE WITH ALL VILLAGE ORDINANCES/INSPECTIONS.

NO BUSINESS MAY OPEN UNTIL FEES ARE PAID AND LICENSE IS ISSUED.

SIGNATURE OF BUSINESS OWNER Laurence C. Kelly DATE 8-6-06

INCOMPLETE APPLICATIONS WILL BE RETURNED TO APPLICANT

BUILDING OWNER INFORMATION:

NAME (PRINT) Molidore Venture Capital - James Molidore SOC. SEC.# 348-66-4179
HOME ADDRESS 835 W. Washington CITY/STATE/ZIP Chicago, IL 60608
PHONE (312)432-0708 CELL (312)399-0059 DRIVERS LICENSE/STATE ID # M436-4537-0287 STATE IL
BUSINESS NAME (if applicable): Molidore Venture Capital EMERGENCY PHONE: (312)399-0059

The Village of Riverdale has adopted the following codes for all permits whether a licensed and bonded contractor or the individual building owner performs the work. Actual blueprints may be required when applying for permits.

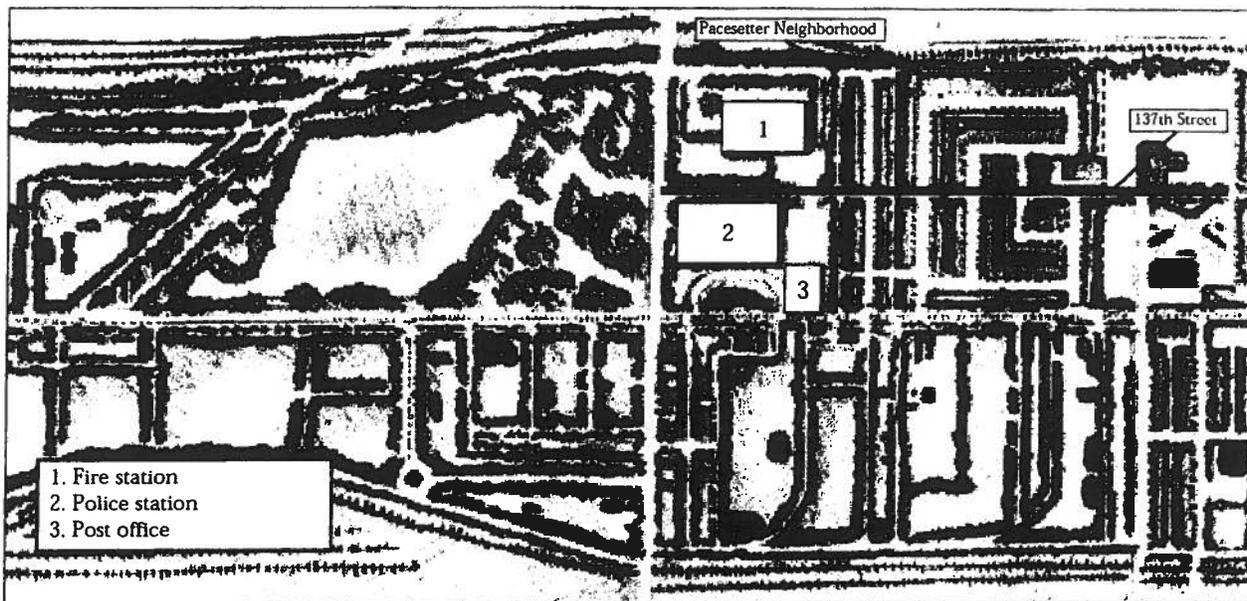
1. The BOCA National Building Code, 1996 Edition
2. The CABO One and Two Family Dwelling Code, 1995 Edition
3. The NFPA Life Safety Code 101, 1997 Edition
4. The NFPA National Electrical Code, 1999 Edition
5. The Illinois Plumbing Code, 1993 Edition
6. The ICC International Mechanical Code, 1996 Edition
7. The BOCA National Fire Prevention Code, 1996 Edition
8. NFPA Codes and Standards, Latest Editions
9. The BOCA National Property Maintenance Code, 1996 Edition
10. The CABO Model Energy Code, 1995 Edition
11. The CABO/ANSI Standard for Accessible & Usable Buildings & Facilities, 1992 Edition
12. The Illinois Accessibility Code, 1997 Edition

I understand that these codes are to be followed for all work done under a current Village of Riverdale Permit. I further understand that no business shall be conducted until a business license is issued and compliance with all applicable Village regulations is met.

SIGNATURE OF BUSINESS OWNER Laurence C. Kelly DATE 8-6-06

Exhibit 24

Attachment "C"



The Panel's proposed site plan connects Pacesetter to the rest of Riverdale by extending 137th Street to the post office and police and fire stations to the west, and a residential neighborhood to the east.

To truly change the development, the panel suggested Pacesetter should shed its negative image by being renamed — but only as the outlines of a bold plan become reality. Some panelists suggested holding a naming contest.

Transforming Pacesetter's image cannot happen overnight. Panel members said that Riverdale will need a Master Plan to govern the transformation. They suggested a phased redevelopment, rehabbing 30 or more units a year using funds from various subsidies, then re-selling them through lease-to-own or other financing programs for low-income families. In the meantime, the Village should exercise more oversight over existing owners by adopting a landlord ordinance and vigorously enforcing home maintenance laws now on the books. Renovation of the park and nearby buildings would be one way to signal significant change. More analysis of property ownership, redevelopment opportunities and an active acquisition program will be needed before the Village determines which structures should be redeveloped first. In addition, the Village can work with existing owners, or encourage them to sell to new owners who support the redevelopment vision.

The Village of Riverdale will play an important role in these changes, but cannot act alone. Panelists recommended that the Village form a partnership with an organization like the Riverdale Redevelopment Corporation, Turnstone Development (a Chicago community development corporation) or another entity to provide assistance with planning, staffing and funding. When the task is completed, the new Pacesetter should serve as a model for other communities with deteriorating housing complexes.

"When I moved to the Chicago area, Riverdale was a gem," said panelist Howard Stanback, executive director of the Leadership Council of Metropolitan Open Communities, and until recently, a developer. "We have all volunteered to help you bring it back to that condition."

Exhibit 25

Attachment "D"

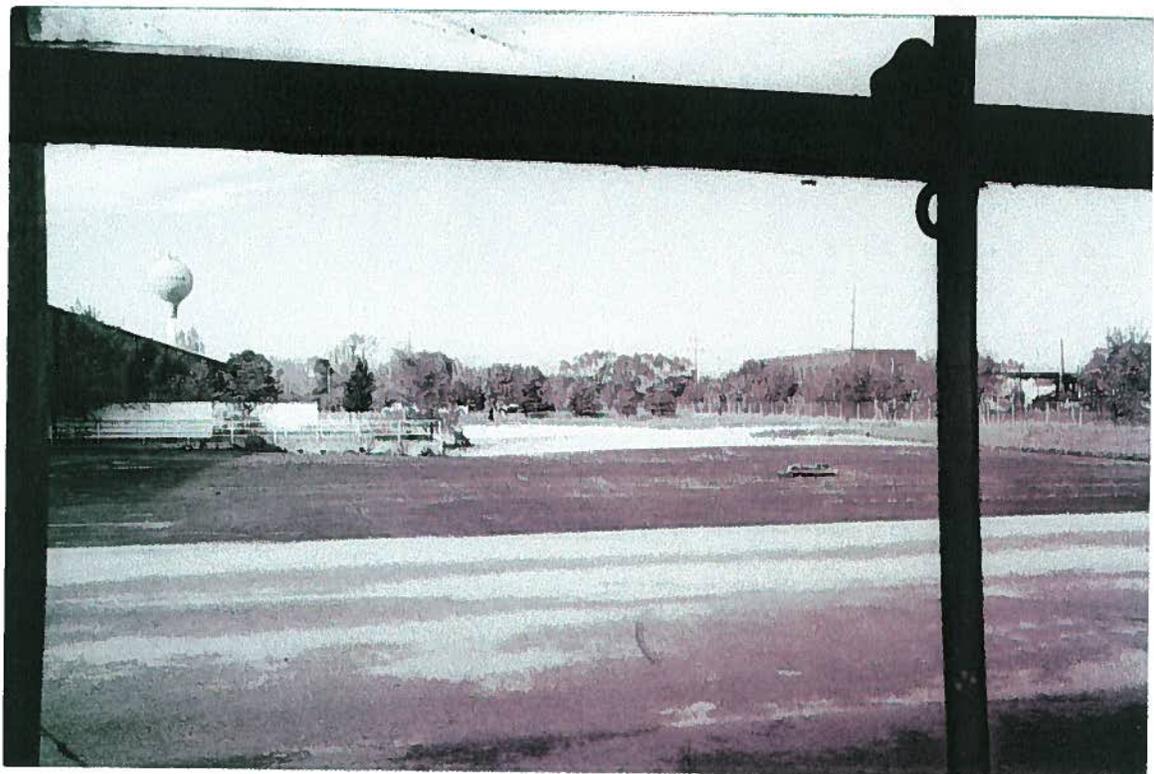
Pictures taken by Larry Kelly on 10-04-2007, 2 days short of 1 full month after the siege began. Larry Kelly had entered the Riverdale Property at 7:00 a.m. in the morning at the direction of legal counsel, before the blockades were put up for that day by the Village, to view damage that had occurred from the unfettered vandalism inside and outside the building

Squad car appears at 7:20 a.m. then heads back towards other cars that are gathering



Pictures taken by Larry Kelly on 10-04-2007, 2 days short of 1 full month after the siege began. Larry Kelly had entered the Riverdale Property at 7:00 a.m. in the morning at the direction of legal counsel, before the blockades were put up for that day by the Village, to view damage that had occurred from the unfettered vandalism inside and outside the building

Gathering Riverdale Vehicles for Daily Road Block

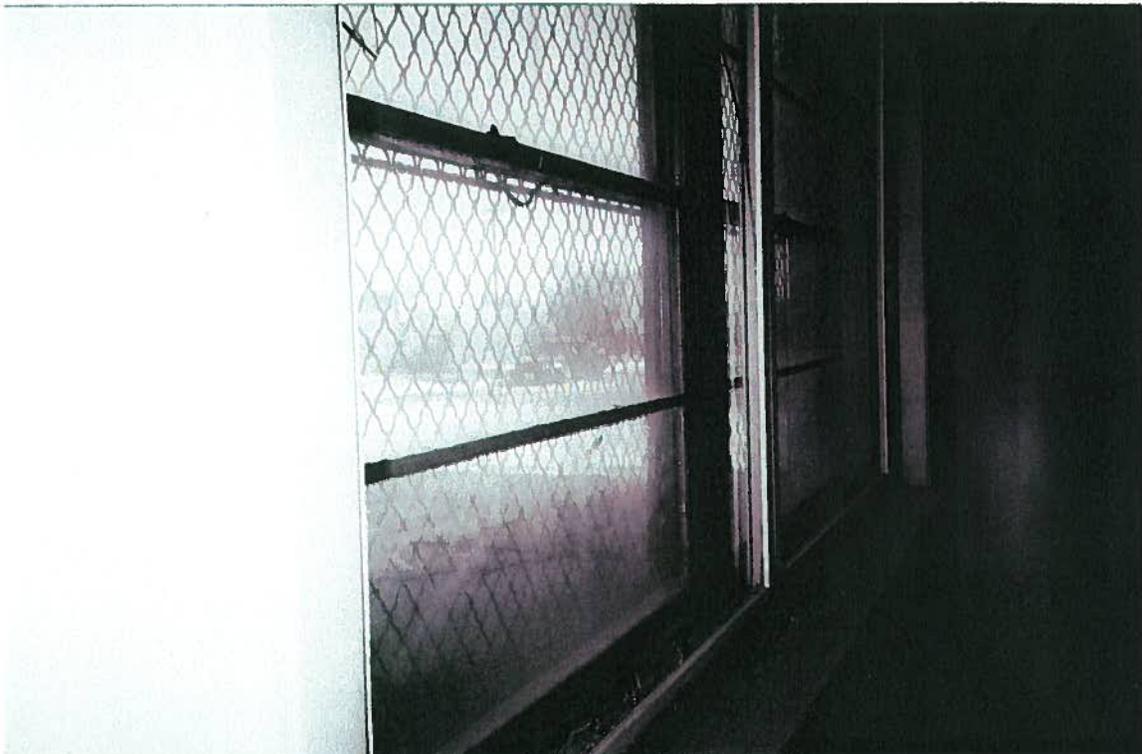


Pictures taken by Larry Kelly on 10-04-2007, 2 days short of 1 full month after the siege began. Larry Kelly had entered the Riverdale Property at 7:00 a.m. in the morning at the direction of legal counsel, before the blockades were put up for that day by the Village, to view damage that had occurred from the unfettered vandalism inside and outside the building

About 11:30 a.m. squad car arrives in front of property

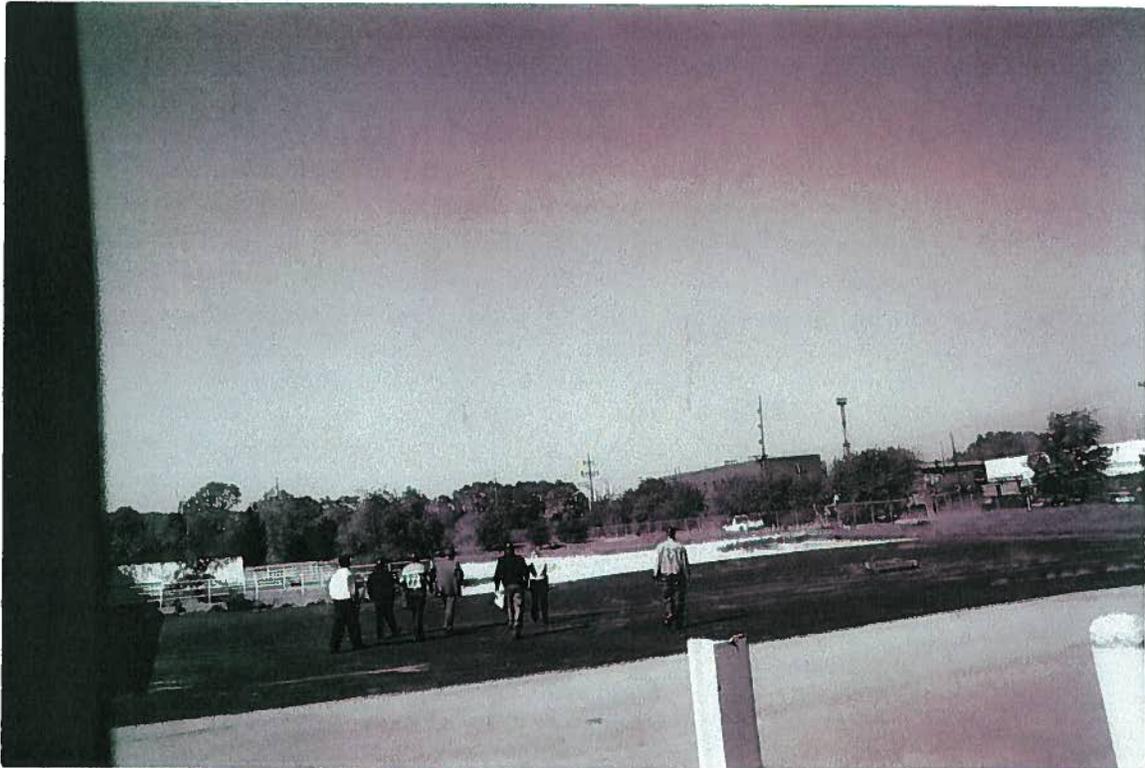


Squad Car moves onto threw open gate property around 11:45 a.m.



Pictures taken by Larry Kelly on 10-04-2007, 2 days short of 1 full month after the siege began. Larry Kelly had entered the Riverdale Property at 7:00 a.m. in the morning at the direction of legal counsel, before the blockades were put up for that day by the Village, to view damage that had occurred from the unfettered vandalism inside and outside the building

Immediately after the squad car came onto the property 7 men appeared inside the Building around 11:45 a.m. They entered unannounced, told me to leave the property in 5 minutes or I would be arrested. The person carrying the clipboard in his left hand took one of my throwaway cameras, this camera was in my pocket.



Pictures taken by Larry Kelly on 10-04-2007, 2 days short of 1 full month after the siege began. Larry Kelly had entered the Riverdale Property at 7:00 a.m. in the morning at the direction of legal counsel, before the blockades were put up for that day by the Village, to view damage that had occurred from the unfettered vandalism inside and outside the building

This picture was taken in the morning not sure what time. It depicts some of our personal property from inside our building lying in the vacant buildings' back yard across the alley from our property

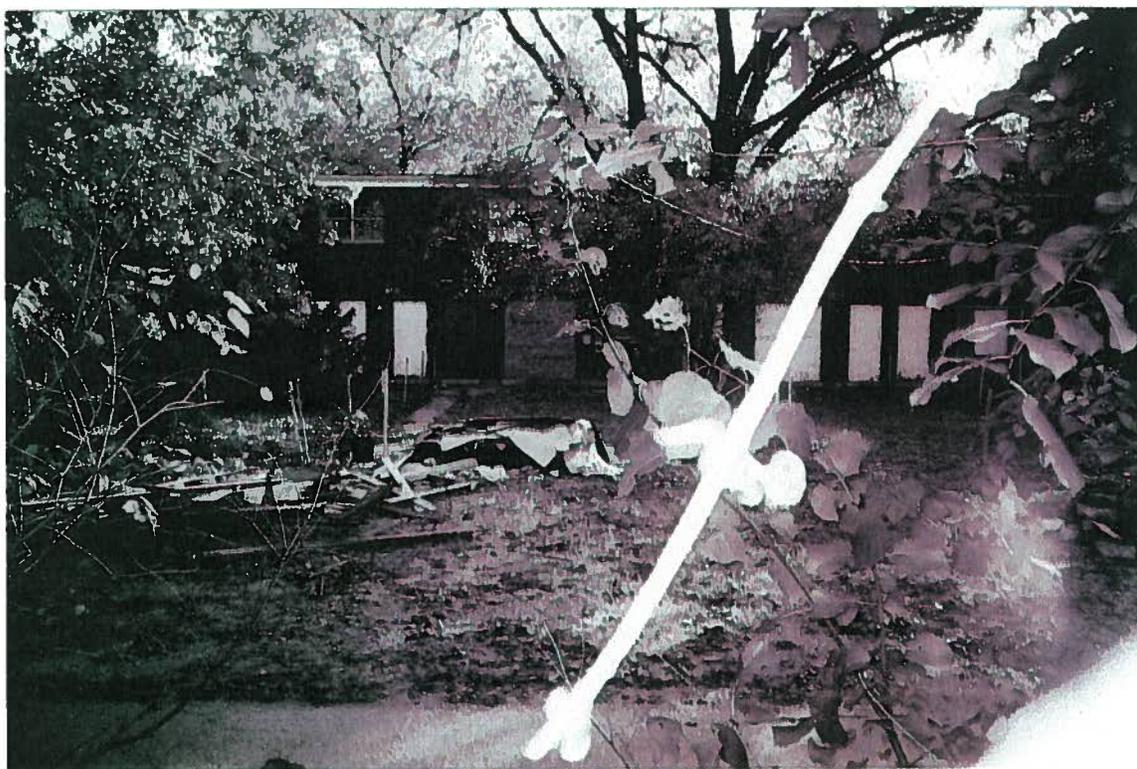


Exhibit 26

Attachment "G"

Jeep & Blazer, L.L.C.
environmental law

Jeffery D. Jeep*
Michael S. Blazer**
Thomas S. Yu
Lance E. Franke***
Derek B. Rieman

24 N. Hillside Avenue
Suite A
Hillside, Illinois 60162
(708) 236-0830
(708) 236-0828 Fax

Lake County Office:
450 N. Green Bay Road
Waukegan, IL 60085

* Also admitted in Massachusetts
** Also Admitted in New York
*** Also Admitted in Wisconsin

Michael S. Blazer
email: mblazer@enviroatty.com

Web Site: www.enviroatty.com

October 9, 2007

VIA FEDERAL EXPRESS

Mr. Larry Kelly
River Shannon Recycling
6400 Chestnut Avenue
Morton Grove, IL 60053

Re: RSR Facility, 13605 S. Halsted, Riverdale, Illinois

Dear Mr. Kelly:

This is a follow-up to my letter to you of September 6, 2007, delivered to you in my office, to immediately cease all operations in the Village of Riverdale. You are aware that the Village has conducted two inspections of your facility since that time, and your facility has been observed by Village personnel at other times. All of these observations confirm that you are continuing to operate, despite our directive to cease immediately. This is also in direct contravention of the clear notice in the license applications that you have submitted, all of which specifically provide that no business may open until a license is issued.

Equally disturbing are the results of the inspections, which evidence operations in contravention of Village nuisance and waste ordinances, and Federal and State regulations regarding the handling and disposal of universal waste.

Despite the foregoing, we have been advised that you submitted a business license "renewal" application on September 29. You have never been issued a business license, and a renewal application is therefore inappropriate. We are hereby returning that application, along with your check no. 2177, as your application is rejected. In addition, as discussed when we met on September 6, the Village had inadvertently failed to refund to you the fees that accompanied your prior application. I enclose the Village's check no. 049742, in the amount of \$900, which represents that refund.

You have been given fair warning to cease your illegal operations. I suggest you seriously consider the ramifications of continued non-compliance.

Very truly yours,



Michael S. Blazer

MSB/me

cc: Mayor Evans
Arlette Frye
Janice Morrissy
Tim Lapp

Exhibit 27

Attachment "F"

Form **BCA-4.15/4.20**

(Rev. Jan. 2003)

Secretary of State
Department of Business Services
Springfield, IL 62756
217-782-9520
www.cyberdriveillinois.com

Remit payment in the form of a check or money order, payable to Secretary of State.

**Application to Adopt,
Change or Cancel an
Assumed Corporate Name**

File #:

DO NOT SEND CASH

This space for use by Secretary of State.

Date:

Filing Fee: \$
(See Note Below)

Approved:

- Corporate Name: MERCURY Vapor Processing Technologies, Inc.
- State or Country of Incorporation: Illinois
- Date Incorporated (if an Illinois corporation) or Date Authorized to Transact Business in Illinois (if a foreign corporation):
October 16th, 2003
Month & Day Year

Complete No. 4 and No. 5 if adopting or changing an assumed corporate name.

- Corporation intends to adopt and to transact business under the assumed corporate name of:
S.L.R. Technologies
- The right to use the assumed corporate name shall be effective from the date this application is filed by the Secretary of State until October 1st, 2010, the first day of the corporation's anniversary month in the next year evenly divisible by five.
Month & Day Year

Complete No. 6 if changing or cancelling an assumed corporate name.

- Corporation intends to cease transacting business under the assumed corporate name of:

- The undersigned corporation has caused this statement to be signed by a duly authorized officer who affirms, under penalties of perjury, that the facts stated herein are true and correct.

Dated September 28th, 07 MERCURY Vapor Processing Technologies, Inc.
Month & Day Year Exact Name of Corporation

Lawrence C Kelly Pres
Any Authorized Officer's Signature
Name and Title (type or print)

NOTE: The filing fee to adopt an assumed corporate name is \$150 if the current year ends with a 0 or 5; \$120 if the current year ends with a 1 or 6; \$90 if the current year ends with a 2 or 7; \$60 if the current year ends with a 3 or 8; or \$30 if the current year ends with a 4 or 9.

The fee for cancelling an assumed corporate name is \$5.

The fee to change an assumed name is \$25.

Exhibit 28

Attachment "A"

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE ADMINISTRATOR

IN THE MATTER OF:

Mercury Vapor Processing)
Technologies Inc. a/k/a River Shannon)
Recycling)
13605 S. Halsted St.)
Riverdale, Illinois 60827)
U.S. EPA ID No: ILD005234141, and)
Laurence C. Kelly)
RESPONDENTS)
_____)

AFFIDAVIT OF BILL ASHBY IN SUPPORT OF THE
OBJECTION TO A MOTION FOR PARTIAL ACCELERATED
DECISION ON APPLICABLE REGULATIONS AND LIABILITY

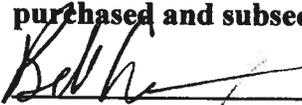
STATE OF ILLINOIS)

)

COOK COUNTY)

I, Bill Ashby, first being duly sworn, on oath state as follows:

I was the prime tenant of a property located at 6410 Chestnut St., Morton Grove, Illinois. At that time I owned and operated my business from that location known as City Car and Truck Rental. From October of 2003 to January of 2010, I subleased part of my yard space to Larry Kelly d/b/a/Shannon Lamp Recycling. He had IN and OUT privileges and parked trailers, trucks and other equipment on that portion of my lot until the building was purchased and subsequently demolished.



Dated 3-2-11

Bill Ashby



My license expires 10-14-2014

Notary Public

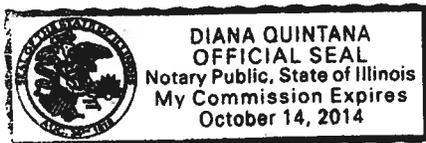


Exhibit 29

Attachment "A"



How to Manage Used Fluorescent and High-Intensity-Discharge Lamps as Universal Wastes

View Brochure: *Facts on Compact Fluorescent Lamps & Proper Disposal*

This fact sheet is for general information only. It is not intended to replace, interpret or modify the regulations for managing hazardous fluorescent and high-intensity-discharge (HID) lamp wastes in Illinois.

Why is proper disposal of used fluorescent lamps important?

Improper disposal of used fluorescent and high density discharge lamps damages the environment. Fluorescent lamps illuminate countless businesses, stores, schools and homes. HID lamps (mercury-vapor, metal-halide and high-pressure sodium) are used for street lights, floodlights and industrial lighting. Unfortunately, most of these lamps have been improperly collected as municipal waste and dumped in ordinary sanitary landfills. When broken, these lamps release mercury and other metals that damage the environment.

Used fluorescent and HID lamps may be classified as hazardous waste due to their mercury content and are thus regulated under the Resource Conservation and Recovery Act (RCRA). These regulations provide for management of hazardous wastes. In Illinois, the newly amended Universal Waste Rule encourages recycling or proper disposal of waste lamps. The Illinois Pollution Control Board amended the Illinois Universal Waste Rule (on April 2, 1998) to cover lamps that meet the definition of hazardous waste. Wastes in this special category of hazardous waste are called "universal" because they are broadly generated. Pesticides, thermostats and batteries also can be classified as universal wastes.

The Illinois Universal Waste Rule encourages hazardous waste lamps to be properly collected, and subsequently recycled or disposed of.

What are my options for managing hazardous lamps?

In Illinois, you may follow the Universal Waste Rule described in this fact sheet (and in state regulations) or you may follow RCRA requirements for hazardous-waste handling, storage, treatment and disposal. You must choose one of these options.

How can I be sure my waste lamps are hazardous?

In order to manage these lamps properly, you may:

- accept the lamp maker's written claim the lamps are not hazardous;
- assume they are hazardous;
- have them tested.

How does the Illinois Universal Waste Rule help me?

Managing waste lamps under the streamlined requirements of the Illinois Universal Waste Rule:

- Eliminates permits for universal waste handlers and transporters;
- Eliminates manifests (except when lamps are transported through or are treated or disposed in states not recognizing waste lamps as universal waste);
- Eliminates their contribution to your total volume of hazardous waste;
- Increases the time you may store waste lamps;
- Reduces record keeping, training and emergency preparedness requirements.

What conditions make me a universal waste handler?

If you *generate* universal waste or *receive* it for consolidation, you **are** a universal waste handler. If you *treat, dispose, recycle or transport* such wastes, you are **not** a universal waste handler.

Handlers who transport waste lamps are subject to all regulations affecting transporters. (Transport means moving wastes off-site.)

How do I tell if I'm a small- or a large-quantity handler?

Accumulating *less than* 11,000 pounds of universal waste at a time makes you a small-quantity handler; *more than* 11,000 pounds makes you a large-quantity handler. (It takes about 17,000 48-inch lamps to equal 11,000 pounds.)

What obligations apply to handlers and transporters?

Handlers and transporters are prohibited from disposing, treating, recycling or diluting waste lamps. Instead they must:

- Send lamps to a facility that accepts universal-waste lamps for recycling, treatment or disposal; a list of recyclers is available from the Illinois EPA.
- Minimize breakage and immediately clean up broken or damaged lamps;
- Prevent release of lamp fragments and residues. (The Illinois EPA recommends storing broken lamps in nonmetallic packaging because mercury tends to accumulate on other metals.)

How should waste lamps be labeled?

Individual waste lamps or containers must clearly state one of the following:

- "Universal Waste Lamps"
- "Waste Lamps"
- "Used Lamps"

How long can handlers accumulate universal wastes?

For up to one year (or longer if they can demonstrate more time is needed to collect quantities necessary for proper recovery, treatment or disposal). Handlers must record on each lamp or lamp container the date lamps became waste.

How should we train workers who handle waste lamps?

In-house training differs between small- and large-quantity handlers:

- Small-quantity handlers shall **inform** *all employees who handle or manage universal waste* of proper handling and emergency procedures;
- Large-quantity handlers shall **ensure** *all employees are thoroughly familiar* with these procedures.

What shipping papers and records are required?

Large-quantity handlers must record each shipment of universal waste in a log, invoice, manifest, bill of lading or other shipping document, and include:

- name and address of receiving facility;
- quantity and type of each waste;
- shipping date.

Records must be kept for at least three years from date of shipment. Small-quantity handlers are not required to keep records.

May I crush my lamps?

Universal waste handlers and transporters may crush waste lamps *only to reduce their volume, and only at the site where waste lamps are generated*, provided:

- Crushing occurs in a closed system designed and operated to prevent mercury emissions from exceeding 0.1 milligrams per cubic meter, measured on a time-weighted average over an eight-hour period, as rated by the crusher's manufacturer;
- The Illinois EPA is notified of crushing activities quarterly, in a form acceptable to the Agency;
- Crushing occurs in a well-ventilated and -monitored area, to ensure compliance with applicable OSHA exposure limits;
- Employees crushing lamps are thoroughly familiar with emergency procedures and proper handling of mercury waste;
- Crushed lamps are stored in closed, nonleaking containers;
- Spilled or leaked materials are transferred immediately to closed containers.

Crushing may pose health and environmental risks if mercury vapors are released. Also, lamp recyclers may prefer whole lamps to crushed ones.

How long may transporters store universal waste?

Transporters may store universal waste at a universal-waste transfer facility for no more than 10 days without becoming a universal waste handler subject to additional requirements. Transporters may take universal waste to only a universal waste handler, a universal-waste transfer facility or a universal-waste destination facility.

Do handlers and transporters need permits?

Universal waste handlers or transporters need not obtain hazardous waste management permits, but must manage these wastes in compliance with state regulations.

How should home-owners manage waste lamps?

Mercury-containing lamps discarded by *households* are not subject to hazardous waste rules and can be accepted by municipal-waste landfills; however, the Illinois EPA recommends you take these lamps to household-hazardous-waste collection centers. (Call your county recycling coordinator to find the center nearest you.)

What if I have questions not covered by this fact sheet?

For further information regarding the management of universal wastes and other hazardous wastes in Illinois, there are several additional resources available:

Federal Fact Sheet: Some Used Lamps are Universal Wastes

Federal Final Rule on Hazardous Waste Lamps

Illinois Universal Waste Management Regulations

If you still have questions, please call the Illinois EPA's Bureau of Land Permit Section, at 217-524-3300.

Where can I locate a fluorescent lamp recycler near me?

For information purposes only; inclusion does not constitute endorsement; omission does not constitute disapproval. Compliance status should be verified with the environmental agency of the state where the facility is located.

Illinois	Waste(s) Accepted
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<p>Air Cycle Corp. 2000 S. 25th Avenue, Suite C Broadview, IL 60155 Tel: 800-909-9709 Fax: 708-344-7875 email</p>	<p>All kinds of lamps, batteries, ballasts, and electronic equipment</p>
<p>Everlights Lamp and Ballast Recycling 9901 S. Torrence Avenue Chicago, IL 60617 Tel: 773-734-9873 Fax: 773-723-9874 email</p>	<p>Fluorescent lamps, ballasts, batteries, computers, hazardous and special waste, electrical supplies</p>
<p>Fluorecycle, Inc. 27780 W. Concrete Dr., Unit A Ingleside, IL 60041 Tel: 815-363-4411 Fax 815-363-4422 email</p>	<p>All mercury-containing lamps</p>
<p>Indiana</p>	<p>Waste(s) Accepted</p>
<p>Heritage Environmental Services 7901 W. Morris St. Indianapolis, IN. 46231 Tel: 317-243-0811 or 877-436-8778 Fax: 317-486-5085</p>	<p>Lamps, batteries, ballasts, electronics</p>
<p>Lighting Resources Inc. 498 Park 800 Drive Greenwood, IN 46143 Tel: 317-888-3889 Fax: 317-888-3890 email</p>	<p>Fluorescent lamps and ballasts</p>
<p>Retrofit Recycling, Inc. 2156 South Lynhurst Drive Indianapolis, IN 46241 Tel: 317-381-0628 or 866-97-RETRO Fax: 317-381-0638</p>	<p>Fluorescent and HID lamps, ballasts, batteries, PCB material, electronics, mercury devices</p>
<p>Iowa</p>	<p>Waste(s) Accepted</p>
<p>A-Tec Recycling Inc. Box 7391 Des Moines, IA 50309 Tel: 800-551-4912 Fax: 515-263-6970 email</p>	<p>Fluorescent and HID lamps, ballasts, capacitors, mercury devices, batteries, computers</p>
<p>Michigan</p>	<p>Waste(s) Accepted</p>
<p>Cleanlites Recycling Inc. Box 212, 665 Hull Road Mason, MI 48854 Tel: 517-676-0044 Fax: 517-676-4449 email</p>	<p>Lamps, batteries, and ballasts</p>
<p>Minnesota</p>	<p>Waste(s) Accepted</p>

<p>Mercury Technologies of Minn. Inc. Pine City Industrial Park, Box 13 Pine City, MN 55063-0013 Tel: 800-864-3821 or 320-629-7888 Fax: 320-629-7799 email</p>	<p>Fluorescent lamps</p>
<p>Mercury Waste Solutions Inc. 2007 W. County Road C-2 Roseville, MN 55113-1211 Tel: 651-628-9370 or 877-636-6514 Fax: 651-628-9371</p>	<p>Lamps, mercury devices</p>
<p>Retrofit Recycling, Inc. 2960 Yorkton Blvd. Little Canada, MN 55117 Tel: 651-766-7422 or 800-274-1309 Fax: 651-766-9900</p>	<p>Fluorescent and HID lamps, ballasts, batteries, PCB material, electronics, mercury devices</p>
<p>Missouri</p>	<p>Waste(s) Accepted</p>
<p>HTR-GROUP P.O. Box 185 Lake Ozark, MO 65049 Tel: 888-537-4874 or 573-302-7575 Fax: 573-302-7579 email</p>	<p>Lamps, ballasts, batteries, computers</p>
<p>Ohio</p>	<p>Waste(s) Accepted</p>
<p>Environmental Recycling PO Box 167 527 East Woodland Circle Bowling Green, OH 43402 Tel: 800-284-9107 Fax: 419-354-5110 email</p>	<p>Lamps, batteries, mercury devices</p>
<p>USA Lamp and Ballast Recycling 7806 Anthony Wayne Ave. Cincinnati, OH 45216 Tel: 513-641-4155 or 800-778-6645 Fax: 513-641-4156</p>	<p>Lamps, batteries, ballasts, CRTs</p>
<p>Wisconsin</p>	<p>Waste(s) Accepted</p>
<p>Budget Lamp Reclaimers 3224 Kingsley Way Madison, WI 53713 Tel: 608-275-6766 or 800-311-963 Fax: 608-275-6765</p>	<p>Lamps, ballasts, batteries</p>
<p>Environmental Solutions W7485 County Road U Plymouth, WI 53073 Tel: 800-779-3050 Fax: 920-528-0035</p>	<p>Lamps, refrigeration devices, batteries</p>

email	
Lamp Recyclers Inc. 3055 Holmgren Way Green Bay, WI 54304 Tel: (920) 592-1161 or 800-558-1166 email	Lamps, ballasts, batteries, computer stuff
Mercury Waste Solutions Inc. 21211 Durand Ave. Union Grove, WI 53182-9711 Tel: 262-878-2599 or 800-741-3343 Fax: 262-878-2699 email	Lamps, mercury devices
Recycle Technologies Inc. 1480 N. Springdale Road Waukesha, WI 53186 Tel: 262-798-3040 or 800-305-3040 Fax: 262-798-3053	Lamps, electronics, ballasts, batteries, mercury-containing things, non-hazardous industrial waste
Veolia Environmental Services 1275 Mineral Springs Drive Port Washington, WI 53074 Tel: 262 268-9168 Fax 608 356-9669	Mercury containing items, ballasts, batteries, electronics
Wisconsin Ballast Inc. W193S6817 Hillendale Drive Muskego, WI 53150 Tel: 262-679-2080 or 800-345-4437 Fax: 262-679-4748 email	Ballasts and lamps

Exhibit 30

Attachment "I"



Mercury

You are here: [EPA Home](#) [Mercury](#) Information for Consumers

http://www.epa.gov/mercury/consumerinfo.htm#cl

Last updated on Wednesday, December 08, 2010

Information for Consumers

Mercury is contained in some of the fish we eat, whether caught in local lakes and streams or bought in a grocery store. Mercury is also contained in some of the products we use, which may be found in your home, at the dentist, and at schools. This page provides links to information about sources of mercury exposure, potential health effects, fish that may contain mercury, consumer products that contain mercury, and ways to reduce your exposure to mercury.

- [General Information](#)
- [Batteries](#)
- [Dental Amalgam](#)
- [Fish Consumption](#)
- [CFLs and Other Fluorescent Light Bulbs](#)
 - [Connections between Mercury and CFLs](#)
 - [Why Use CFLs if They Contain Mercury?](#)
- [Health Effects](#)
- [Human Exposure](#)
- [Mercury-Containing Products](#)
- [Recycling and Disposal](#)
- [Spills and Cleanup](#)
- [Thermometers](#)
- [Thimerosal in Vaccines](#)
- [Where You Live](#)

General Information

[Basic Information](#) - General information about mercury, including what it is, where it comes from, how it is used, and how it moves through the environment.

[EPA's Roadmap for Mercury](#) (July 2006) - This report highlights mercury sources and uses, describes the Agency's progress in addressing mercury issues domestically and internationally, and outlines EPA's major ongoing and planned actions to reduce risks associated with mercury.

Batteries

Most batteries made in the U.S. do not contain added mercury. The two exceptions are mercuric oxide batteries and button cell batteries. Mercuric oxide batteries are produced for specialized use in military and medical equipment where a stable current and long service life is essential. Button cell batteries are miniature batteries in the shape of a coin or button that are used to provide power for a large variety of small portable electronic devices.

The use and disposal of mercury-added button cells are unregulated at the federal level. They

Other Information for Consumers

- [Storing, transporting and recycling mercury](#)
- [Cleaning up a broken compact fluorescent light bulb \(CFL\)](#)
- [Cleaning up a broken thermometer or other mercury-containing item](#)
- [Consumer and Commercial Products: Information about mercury content in antiques, batteries, dental amalgam, fluorescent light bulbs, jewelry, paint, switches and relays, thermometers, thermostats, and vaccines.](#) This page also contains information about reducing use of, and recycling or otherwise disposing of, mercury-containing products.
- [Safe Management of Mercury-Containing Products: A list of types of products that contain mercury, with recommendations for safe management and disposal.](#)

Information for...

Businesses
Consumers
Health Care Providers
Parents
Schools

do not have to be labeled; it is legal to dispose of them in the household trash; and they rarely are collected for recycling in most U.S. jurisdictions. Some states are now considering whether the disposal of button cell batteries should be regulated or whether recycling should be encouraged. Because button batteries currently are not widely targeted for recycling, almost all of this mercury presumably ends up in the municipal solid waste stream where it is either incinerated or landfilled.

For a more information on batteries, see EPA's Web page on [Consumer and Commercial Products](#).

Human Exposure

Mercury exists in various forms, and people are exposed to each in different ways.

Methylmercury Exposure - The most common way that people in the U.S. are exposed to mercury is by eating fish and shellfish that contain methylmercury.

Elemental Mercury Exposure - A less common source of exposure is when liquid elemental mercury is spilled or a device or product containing elemental mercury breaks, thus allowing the mercury to evaporate and become an invisible, odorless toxic vapor.

Health Effects

Mercury exists in three chemical forms: methylmercury, elemental mercury, and other mercury compounds. Each chemical form of mercury has its own specific effects on human health.

Whether an exposure to the various forms of mercury will harm a person's health depends on a number of factors: the dose; the age of the person exposed (the fetus and young children are most susceptible); the duration of exposure; the route of exposure -- inhalation, ingestion, dermal contact, etc.; and the health of the person exposed.

Almost all people have at least trace amounts of methylmercury in their tissues, reflecting methylmercury's widespread presence in the environment and people's exposure through the consumption of fish and shellfish.

Fish Consumption

Fish and shellfish are an important part of a healthy diet. Fish and shellfish contain high-quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children's proper growth and development.

However, nearly all fish and shellfish contain traces of methylmercury. For most people, the risk from exposure to methylmercury by eating fish and shellfish is not a health concern. Yet some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. The risks from methylmercury in fish and shellfish depend on the amount of fish and shellfish eaten and the levels of methylmercury in the fish. Federal, state and local governments issue fish advisories when the fish are unsafe to eat.

Fish Consumption Advisories - This page provides links to extensive information on fish advisories, including advisories issued by state and local governments and by the EPA and the U.S. Food and Drug Administration.

Fish Kids - This Web site uses interactive stories and games to teach kids ages 8-12 about contaminants in fish and fish advisories.

Mercury-Containing Products

Elemental mercury has properties that have led to its use in many different products and industrial sectors. While some manufacturers have reduced or eliminated their use of mercury in products, there are still many consumer items in the marketplace that contain mercury. EPA encourages individuals, organizations and businesses to use non-mercury alternatives and to recycle used mercury-containing products whenever possible.

Consumer and Commercial Products - This Web page provides more extensive information on mercury-containing products, plus links to related information from other federal agencies, state environmental agencies, and non-governmental organizations.

EPA's Database on Mercury-Containing Products and Alternatives - This searchable database contains publicly available information on consumer and commercial products that contain mercury, and also information on non-mercury alternatives. This is a Windows database designed to be downloaded to operate on an individual computer. The primary source of information on mercury-containing products is the IMERC [Mercury-added Products Database](#), which is discussed below. EPA supplements the IMERC data with publicly available information on additional mercury-containing products. Information on non-mercury alternatives is gathered from a variety of public sources, including industry associations, non-governmental organizations, numerous Web sites and published reports. The information is updated annually.

Interstate Mercury Education & Reduction Clearinghouse (IMERC) Mercury-Added Products Database EXIT Disclaimer - The IMERC database is managed by the Northeast Waste Management Officials' Association (NEWMOA). It presents information on: (1) the amount and purpose of mercury in specific products that are sold in eight IMERC-member states; (2) the total amount of mercury in these products sold nationally in a given year; and (3) the manufacturers of these products. The information is submitted to IMERC by or on behalf of product manufacturers in compliance with laws in the eight states of Connecticut, Louisiana, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Notification requirements have been in effect for products manufactured or distributed in these states beginning in January 2001. The information is updated every three years.

CFLs and Other Fluorescent Light Bulbs

- [Learn about Energy Star CFLs](#)
- [Frequent questions about CFLs](#) from the Energy Star program
- [Recommended steps to clean up and dispose of broken CFL bulbs](#)
- [Recycling and disposal of CFLs after they burn out](#)
- Businesses can learn about how to properly recycle/dispose of used CFLs and other fluorescent light bulbs by visiting EPA's [Managing Your CFLs in an Environmentally-Safe Manner](#) page.

Coming in 2011: New Labels for CFL Packaging

The Federal Trade Commission (FTC) announced June 18, 2010 that starting in mid-2011, packaging for CFLs, LED bulbs and traditional incandescent bulbs will include new labels designed to help consumers select the most efficient bulbs that best fit their lighting needs. Both the labels and the bulbs themselves will include disclosures for bulbs containing mercury. Read more information on the FTC's

Connections Between Mercury and CFLs

Using CFLs reduces the amount of mercury released into the environment

- Mercury is found in many rocks including coal. When coal

is burned at a utility power plant to produce electricity, mercury is released into the environment. Appliance Labeling Rule.

- Coal-burning power plants are the largest man-made source of mercury emissions to the air in the United States, accounting for about half of all domestic human-caused mercury emissions (*source: 2005 National Emissions Inventory*).
- Using energy-efficient CFLs reduces demand for power, which in turn reduces the amount of mercury released into the environment by coal-burning power plants.

CFLs contain very small amounts of mercury

- Mercury is an essential part of CFLs; it allows the bulb to be an efficient light source.
- On average, CFLs contain about four milligrams of mercury sealed within the glass tubing. By comparison, older thermometers contain about 500 milligrams of mercury – an amount equal to the mercury in over 100 CFLs.
- Manufacturers of fluorescent lighting products are working to reduce the amount of mercury content in CFLs.
- No mercury is released when the bulbs are intact (i.e., not broken) or in use, but CFLs release mercury vapor when broken.

Why use CFLs if they contain mercury?

Small amounts of mercury can be released into the environment when CFLs break, or if they are improperly disposed of at the end of their useful lives. The total amount of mercury that could be released into the environment through breakage and improper disposal, however, is small compared to the amount of mercury that doesn't get released into the environment because Americans are choosing energy-efficient CFLs, reducing demand for electricity. [Learn more from the Energy Star program about the benefits of using CFLs.](#)

Thimerosal in Vaccines

Some consumers are concerned about the use of thimerosal, a mercury-containing preservative, in vaccines. Since 2001, with the exception of some influenza (flu) vaccines, thimerosal is not used as a preservative in routinely recommended childhood vaccines.

To learn more about this use of thimerosal, please see [information from the Food and Drug Administration \(FDA\) on medicines that contain mercury and thimerosal in vaccines](#), and [information from the Centers for Disease Control and Prevention on thimerosal in vaccines](#).

Recycling and Disposal

EPA encourages the recycling of mercury-containing products rather than disposing of them in regular household trash. Recycling of mercury-containing products is one of the best ways to help prevent mercury releases to the environment by keeping these products out of landfills and incinerators.

Many states and local agencies have developed [collection/exchange programs for mercury-containing devices](#), such as thermometers, manometers, and thermostats, and [recycling programs for fluorescent light bulbs](#). Some counties and cities also have household hazardous waste collection programs. For information about these programs, contact your local collection program to find out whether you can drop your old thermometers off any time or whether you should wait for the next collection effort in your area. You can also use earth911.com to find collection programs in your area -- just type in "thermometer" or "mercury" and your zip code to get a list of programs that accept mercury-containing thermometers.

Spills and Cleanup

Mercury is used in a variety of consumer products such as thermometers and fluorescent bulbs. If you accidentally break a mercury-containing product during use, or improperly dispose of such products, they will release mercury vapors that are harmful to human and ecological health.

Spills - Information on what to do, and what never to do, if you spill mercury.

Exhibit 31

Attachment "J"

Introduction to
Universal Waste

UNIVERSAL WASTE

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1. INTRODUCTION

As mandated by Subtitle C of the Resource Conservation and Recovery Act (RCRA), EPA promulgated regulations governing the safe management of hazardous waste from the point of generation until the point of final deposition. Within these regulations, EPA developed a streamlined management program for certain hazardous wastes, known as universal wastes. The universal waste program provides an alternative set of regulations that reduce the regulatory burden by allowing longer storage of these wastes and reduced recordkeeping. Universal wastes are:

- generated in a wide variety of settings, not solely industrial
- generated by a vast community
- present in significant volumes in nonhazardous management systems.

This module describes the universal waste program, found in 40 CFR Part 273, and defines which hazardous wastes may be handled under these streamlined regulations. When you have completed this module, you will be able to:

- recognize the wastestreams subject to the universal waste program
- identify the participants in the universal waste program
- understand the regulations for each type of participant
- understand the state authorization procedures
- understand the relationship of The Mercury-Containing and Rechargeable Battery Management Act (P.L. 104-142) to EPA's universal waste program.

Use this list of objectives to check your knowledge of universal waste after you complete the training session.

2. REGULATORY SUMMARY

Historically, the regulatory burden associated with recycling certain widely generated hazardous wastes has discouraged smaller facilities from sending hazardous waste to recycling facilities. Because they were often produced by households and conditionally exempt small quantity generators (CESQGs), these hazardous wastes were commonly disposed in municipal solid waste landfills (MSWLFs). As a result, EPA promulgated the universal waste regulations on May 11, 1995 to ease the management burden and promote the collection and recycling of these commonly generated wastes (60 FR 25492). EPA developed the streamlined universal waste regulations in Part 273 with three goals:

- to encourage resource conservation while ensuring adequate protection of human health and the environment
- to improve implementation of the current Subtitle C hazardous waste regulatory program
- to provide incentives for individuals and organizations to collect the unregulated portions of these universal wastestreams and manage them using the same systems developed for the regulated portion, thus removing them from the municipal wastestream.

To accomplish these goals, EPA established standards in 1995 for three types of universal wastes: batteries, pesticides, and thermostats. On July 6, 1999, EPA added hazardous waste lamps to the federal list of universal wastes (64 FR 36466). Most recently, EPA added mercury-containing equipment to the list of waste subject to the federal program (70 FR 45508; August 5, 2005). The regulations also include management standards for four types of persons managing universal waste: small quantity handlers of universal waste (SQHUW), large quantity handlers of universal waste (LQHUW), universal waste transporters, and universal waste destination facilities.

EPA's primary goal for the universal waste program is to encourage the recycling of batteries, mercury-containing equipment, pesticides, and lamps. However, handlers can send their waste for disposal and still remain subject to the universal waste regulations.

The universal waste program is less stringent than full Subtitle C hazardous waste regulations. Because authorized states may enforce regulations that are more stringent than the federal RCRA program, the universal waste program is not automatically effective in states with their own RCRA programs. However, once a state is authorized for universal waste, EPA allows states to include additional universal wastes in their state programs. The following sections of this module will describe the regulations for each category of universal waste and each type of person managing universal waste, the state authorization process, and other special issues.

2.1 WASTES SUBJECT TO THE UNIVERSAL WASTE PROGRAM

The federal universal waste regulations include hazardous waste batteries, mercury-containing equipment, pesticides, and lamps. To be covered under the universal waste program, these items must first be identified as hazardous waste. Items that still have product value and that are still being used are not wastes and, therefore, are not subject to RCRA. In addition, wastes excluded from the RCRA definition of solid or hazardous waste are not subject to the universal waste program. Only material identified as a hazardous waste that meets the definition of battery, mercury-containing equipment, pesticide, or lamp in Part 273 can be managed under the universal waste regulations.

Currently, only these four wastes are covered under the federal program. There is, however, a petition process in Part 273, Subpart G, which allows individuals, as well as states, to petition EPA to add other wastestreams to the universal waste program. Universal wastes that are mixed with hazardous wastes are fully regulated as hazardous waste. However, mixtures of universal waste and CESQG waste or household hazardous waste are subject to the universal waste requirements since these hazardous wastes are not subject to full Subtitle C regulation.

The first wastestream covered under the universal waste program consists of hazardous waste batteries. The universal waste regulations define a battery as a device consisting of one or more electrically connected electrochemical cells that are designed to receive, store, and deliver electrical energy (§273.6). Also included in this definition are unbroken batteries from which the electrolyte has been removed. Hazardous waste batteries meeting this definition are subject to the universal waste regulations. However, lead-acid batteries being recycled may be managed either as universal waste or by Part 266, Subpart G, which contains special provisions for lead-acid batteries. EPA does not have comprehensive data to make interpretations about whether certain battery types are or are not hazardous, so it is the generator's responsibility to determine if that battery is subject to regulation as a hazardous waste.

The second wastestream included in the universal waste program is comprised of certain hazardous waste pesticides. Unused pesticides will often become banned from use, damaged by temperature extremes, or no longer necessary due to crop changes. The universal waste regulations apply to persons managing pesticides that are part of a recall program or unused pesticides that are collected and managed as part of a waste pesticide collection program (§273.3(a)). A recalled pesticide becomes a waste when two conditions occur: the generator agrees to participate in the recall, and the person conducting the recall decides to discard the pesticide or burn it for energy recovery. An unused pesticide becomes a waste on the date the generator decides to discard it (§273.3(c)). Pesticides managed by farmers in accordance with §262.70, which allows farmers to dispose waste pesticides on their own farm in accordance with the disposal instructions on the pesticide label, are not subject to the universal waste regulations (§273.3(b)).

Another wastestream covered by the universal waste program includes hazardous waste lamps. Lamps often exhibit the toxicity characteristic (TC) for mercury or lead, making them a characteristic hazardous waste when discarded. In 1994, EPA proposed two options for lamp management (59 FR 38288; July 27, 1994), and in 1997, a study was conducted to evaluate

mercury emissions from discarded lamps. After responding to comments received on both documents, EPA added hazardous waste lamps to the universal waste regulations. A universal waste lamp is defined as the bulb or tube portion of an electric lighting device (§273.9). Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. Several states added mercury lamps to their universal waste programs prior to the July 1999 final rule. Therefore, this federal addition made the management requirements consistent with many state programs. The approach also encourages the manufacture of low-mercury lamps in industry.

The most recent wastestream covered by the universal waste program is mercury-containing equipment. Elemental mercury is contained in many types of instruments and devices that are commonly used by electric utilities, municipalities, hospitals, and other industries, as well as households. Such devices may include thermometers, manometers, barometers, relay switches, mercury regulators, meters, pressure gauges, and sprinkler system contacts. EPA had considered including this category in the 1995 universal waste rule, but had not done so due to a lack of information about the wastestream. A 1996 petition to add the category to universal waste provided such information and, therefore, EPA decided to include mercury-containing equipment into the federal program. Because mercury thermostats meet the broader definition of mercury-containing equipment, EPA replaced the previously existing sections regulating mercury thermostats with the new requirements for mercury-containing equipment (§§273.13(c) and 273.33(c)). The management requirements in the new section are almost identical, but add provisions for managing mercury that is not in ampules.

2.2 UNIVERSAL WASTE HANDLERS

Universal waste handlers are people who generate or produce universal waste as well as people who receive universal waste from other generators or handlers and consolidate it before sending it to another handler, recycler, or treatment storage and disposal facility. Handlers accumulate universal waste but do not treat, recycle, or dispose of the waste. The universal waste regulations include requirements for two groups of handlers based on the amount of universal waste accumulated on site at any one time:

- SQHUW - accumulates less than 5,000 kilograms (kg) of all universal waste categories
- LQHUUW - accumulates 5,000 kg or greater of all universal waste categories.

Regulations for SQHUWs are found in Part 273, Subpart B, while those for LQHUUWs are found in Part 273, Subpart C. Once a handler triggers the LQHUUW status, he or she will remain a LQHUUW for the rest of the calendar year. However, the handler can re-evaluate his or her handler status at the start of each calendar year.

Universal waste handlers are the members of the regulated community that benefit most from the universal waste program. The reduced regulation, in comparison to the hazardous waste generator regulations, makes it easier for them to store universal waste and send it to a recycling

facility. Table 1 provides a comparison between some of the universal waste handler requirements and the hazardous waste generator requirements. All handlers of universal waste are prohibited from disposing, diluting, or treating universal waste except under limited circumstances as described in the regulations. SQHUWs are not required to notify EPA of their universal waste management activities, while LQHUWs must notify EPA and obtain an EPA identification number if they do not already have one. On-site waste accumulation is limited to one year for both SQHUWs and LQHUWs. Employees at SQHUW facilities must be trained in basic handling and emergency information, while those at LQHUW facilities must be trained based on the employees' responsibilities in handling the universal waste. SQHUWs have no recordkeeping requirements under the universal waste program. LQHUWs must maintain records of all universal waste shipments received by and sent from the facility, although a manifest is not required. These records may be in the form of invoices, manifests, or other shipping papers. Transport of universal waste by both SQHUWs and LQHUWs is allowed, but is subject to the universal waste transporter regulations in Part 273, Subpart D.

Table 1. Universal Waste Handler and Hazardous Waste Generator Requirements

	SQHUW	LQHUW	CESQG	SQG	LQG
Quantity limit	< 5,000 kg on site §273.9	≥ 5,000 kg on site §273.9	≤ 100 kg/month ≤ 1 kg acute/month §261.5(a) and (e)	Between 100 and 1,000 kg/month §262.34(d)	≥ 1,000 kg/month or > 1 kg acute/month Part 262 and §261.5(e)
EPA Identification Number	Not required §273.12	Required §273.32	Not required §261.5	Required §262.12	Required §262.12
On-site accumulation limit	< 5,000 kg §273.9	No limit	≤ 1,000 kg ≤ 1 kg acute ≤ 100 kg spill residue from acute §261.5(f)(2) & (g)(2)	≤ 6,000 kg §262.34(d)(1)	No limit
Storage time limit	1 year, unless for proper recovery, treatment, or disposal §273.15	1 year, unless for proper recovery, treatment, or disposal §273.35	None §261.5	≤ 180 days or ≤ 270 days §262.34(d) & (e)	≤ 90 days §262.34(a)
Manifest	Not required §273.19	Not required, but must keep basic shipping records §273.39	Not required §261.5	Required §262.20	Required §262.20
Personnel training	Basic training §273.16	Basic training geared toward employee responsibilities §273.36	Not required §261.5	Basic training §262.34(d)	Full training (as outlined in §265.16) §262.34(a)

The information in this document is not by any means a complete representation of EPA's regulations or policies, but is an introduction to the topic used for Call Center training purposes.

2.3 TRANSPORTERS

Universal waste transporters are persons who move universal waste shipments from a handler to another handler, a destination facility, or a foreign destination. Unlike the used oil regulations, which allow generators to transport up to 55 gallons of their own used oil without being considered a transporter, the universal waste transporter regulations apply to persons hauling any amount of universal waste.

The universal waste transporter regulations can be found in Part 273, Subpart D. Transporters are subject to the same prohibitions on disposal, dilution, and treatment as universal waste handlers. Hazardous waste manifests are not required for universal waste shipments, but transporters must comply with applicable Department of Transportation (DOT) shipping paper requirements if the universal waste is defined as a hazardous material under DOT regulations. Similar to hazardous waste transporters, persons who transport universal waste may store the waste for up to 10 days at a transfer facility. Exceeding the 10-day limit requires compliance with the applicable handler regulations.

2.4 DESTINATION FACILITIES

The final entity regulated under the universal waste program is the destination facility. These facilities treat, dispose of, or recycle universal waste. Facilities that solely accumulate universal waste are regulated under the handler requirements. As a result, a facility may be a handler for one type of universal waste (e.g., batteries) and a destination facility for another type (e.g., pesticides). In general, a destination facility is subject to full hazardous waste regulation as a treatment, storage, and disposal facility (TSDF), including permitting, general facility standards, and unit-specific standards (§273.60(a)). Destination facilities that recycle universal waste without any prior storage are subject to regulation under §261.6(c)(2). Destination facilities are required to retain records of all universal waste shipments received by and sent from the facility.

2.5 STATE AUTHORIZATION

The universal waste regulations are not automatically effective in states that are authorized for the RCRA program because they provide less stringent management standards for hazardous waste batteries, pesticides, thermostats, and lamps. As with other sections of the RCRA regulations, states can apply for and become authorized to implement the universal waste program. EPA encourages states to adopt and become authorized for the universal waste regulations since these streamlined requirements encourage recycling of commonly generated wastestreams. As of March 31, 2005, 47 states have adopted or have been authorized for the universal waste regulations.

States that are applying for universal waste authorization or that have received universal waste authorization may include additional wastes in their programs. In §273.81, EPA established criteria that a wastestream should meet to be included as a universal waste. States should

evaluate potential additional wastes against these criteria. EPA reviews and approves a state program based solely on the four wastes included in the federal program (i.e., batteries, pesticides, mercury-containing equipment, and lamps) and does not review state-only universal wastes.

3. THE MERCURY-CONTAINING AND RECHARGEABLE BATTERY ACT

The Mercury-Containing and Rechargeable Battery Management Act (P.L. 104-142) was signed into law by President Clinton on May 13, 1996. The two main goals of this Act are to decrease mercury content in batteries and to increase voluntary recycling of batteries. Although this Act does not amend RCRA directly, it makes the federal universal waste regulations effective in all 50 states for the collection, storage, and transportation of:

- used rechargeable batteries
- lead-acid batteries not managed under Part 266, Subpart G
- certain mercury-containing batteries banned from domestic sale
- used consumer products containing rechargeable batteries that cannot be easily removed.

States that have battery management standards are required to have programs identical to the federal universal waste program for the management of these materials. Hazardous waste batteries that meet the definition in this Act must be managed as universal waste.

4. REGULATORY DEVELOPMENT

On August 5, 2005, EPA published a final rule adding mercury-containing equipment to the wastes subject to the federal universal waste program (70 FR 45508). Elemental mercury is contained in several types of instruments that are commonly used by electric utilities, municipalities, and households, in order for the device to operate. Such devices may include thermometers, manometers, barometers, relay switches, mercury regulators, meters, pressure relief gauges, water treatment pressure gauges, and sprinkler system contacts. In a 1996 petition to EPA, the Utility Solid Waste Activities Group (USWAG) estimated that approximately 3,000 pounds of such equipment are generated annually by the electric and gas utilities and by other businesses including retail and commercial establishments, office complexes, and hospitals. EPA believes that adding these wastes to the universal waste rule facilitates collection of mercury-containing equipment, thereby reducing the amount of mercury reaching municipal landfills and incinerators. Because mercury thermostats meet the broader definition of mercury-containing equipment, EPA replaced the existing sections regulating mercury thermostats with the new requirements for mercury-containing equipment.

Exhibit 32

Attachment "K"



Wastes - Hazardous Waste - Universal Wastes -

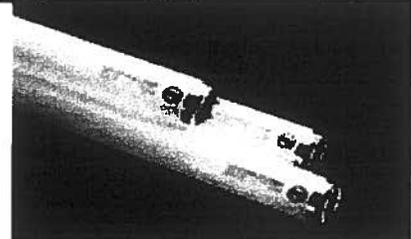
[Bulb/Lamp Recycling](#) [Hazardous Waste](#) [Waste Types](#) [Universal Waste](#)
[Bulb/Lamp Recycling](#) [Basic Information](#)

Basic Information about Recycling Mercury-Containing Light Bulbs (Lamps)

Mercury-containing light bulbs include:

- fluorescent bulbs, including compact fluorescent light bulbs (CFLs);
- high intensity discharge (HID) bulbs, which include mercury vapor bulbs, metal halide and high-pressure sodium bulbs, and are used for streetlights, floodlights, parking lots, and industrial lighting; and
- neon/argon lamps commonly used in the electric sign industry.

[Learn more about the connections between these bulbs and mercury.](#)



Types of Universal Waste

- Batteries
- Pesticides
- Mercury-Containing Equipment
- Mercury-Containing Light Bulbs (Lamps)

Why use fluorescent bulbs if they contain mercury?

Fluorescents are significantly more energy-efficient than incandescent bulbs because they require less energy to provide lighting. Electrical generation from coal-burning power plants also releases mercury into the environment. The use of fluorescent bulbs in place of incandescent bulbs lowers energy use and thus reduces the associated release of mercury from many power plants. Fluorescent bulbs are also more cost effective because they last up to 10 times longer than incandescent bulbs.

Why recycle?

The amount of mercury in a fluorescent lamp ranges between 3.5 to 15 milligrams, depending on the type of fluorescent lamp, the manufacturer, and when the fluorescent lamp was manufactured. Although lighting manufacturers have greatly reduced the amount of mercury used in lighting over the past 20 years, they are not yet able to completely eliminate the need for mercury. Millions of mercury-containing lamps are sold in the United States each year, and most are improperly discarded. Although the amount of mercury in a single fluorescent lamp is small, collectively, large numbers of fluorescent lamps contribute to the amount of mercury that is released into the environment. EPA encourages the recycling of all mercury-containing lamps.

- **Recycling prevents the release of mercury into the environment.** Fluorescent and other mercury-containing bulbs often break when thrown into a dumpster, trash can or compactor, or when they end up in a landfill or incinerator. To prevent the release of mercury, these bulbs should be taken to a recycler before they break. Recyclers recover the mercury and other components for reuse.
- **Other materials in the bulbs get reused.** Recycling CFLs and other fluorescent bulbs allows the reuse of the glass, metals and other materials that make up fluorescent lights. Virtually all components of a fluorescent bulb, including metal end caps, glass tubing, and phosphor powder, can be separated and recycled. Recyclers often sell the metallic portions as scrap metal. The recycled glass can be remanufactured into other

glass products. The mercury can be recycled into new fluorescent lamps and other mercury-containing devices.

- **RCRA regulations require many businesses to recycle mercury-containing bulbs.**
- **Some states have regulations that are more stringent than federal regulations.**

What is lamp crushing and drum-top crushing?

Crushing is the intentional breaking of fluorescent and other mercury lamps for the purpose of volume reduction. Crushing reduces the physical volume of lamps but does not recover any mercury. Crushing is not recycling, but it can be a step in the process when the crushed material is further treated by a recycling process that includes retorting. Generally, hazardous waste lamps should not be landfilled as municipal solid waste. Authorized states have varying regulations regarding the handling, recycling and disposal of mercury-containing lamps. Handlers that choose to intentionally crush lamps must do so in accordance with authorized state programs. For more information specific to your state, contact your state environmental regulatory agency.

It should be noted that lamp crushing can release mercury into the air and pose a health threat to crusher operators and building occupants if the crusher is not operating properly. Lamp crushing can pose a threat if operators do not have the appropriate protective equipment.

Drum-top crushing is done using a mechanical device that fits on top of a 55-gallon collection drum. Whole lamps are broken in the system but components are not separated, and the drum will contain hazardous mercury, phosphor powder, glass and mixed metals. Crushing lamps into drums releases mercury into the filter, which also becomes hazardous. Learn about the results of EPA's 2006 study on the performance of mercury lamp drum-top crusher (DTC) devices.